

What is claimed is:

1 A method for recording information in the form of a pattern of magnetic domains in a recording layer of a material having a Curie temperature and grains, the grains having boundaries over which the exchange coupling is small, the method including

a first step of applying heat to the material, thereby heating an area of the recording layer to a temperature above the Curie temperature during a first interval, and

a second step of applying a magnetic field to the area during a second interval, the second interval ending after the first interval.

2 The method of Claim 1, wherein the duration of the first interval is shorter than 1 ns.

3 The method of Claim 1, wherein the duration of the second interval is shorter than 0.3 ns.

4 The method of Claim 1, wherein the temperature of the area at the end of the second interval is more than 10 K below the Curie temperature.

5 A recording device for recording information in the form of magnetic domains in a material having a Curie temperature and grains having boundaries over which the exchange coupling is small, the device including

a radiation source for supplying a pulsed radiation beam,

an optical system for converging the radiation beam to a spot to heat the material to a temperature above the Curie temperature during a first interval,

a magnetic head for generating a magnetic field at the location of the spot,

a first driver for supplying a first electric pulse signal for controlling the radiation source,

a second driver for supplying a second electric pulse signal for energising the antenna,

a control unit for controlling the first driver and the second driver such that a pulse in the second electric pulse signal ends after the first interval.

6 The recording device of Claim 5, wherein the duration of pulses in the second electric pulse signal have duration shorter than 0.3 ns.

7 An antenna structure for near-field focussing of a light beam, the structure including an electrically conducting material and having the form of a bow-tie having two wings, wherein each wing forms a current winding by means of a slot in the wing in the length direction of the bow-tie.